

6301

Form 504
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, Director

DESCRIPTIVE REPORT

Topographic
Hydrographic

Sheet No. M

State California

LOCALITY

San Francisco Bay

Point Richmond to Point San Pablo

1934

CHIEF OF PARTY

F. H. Hardy

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY
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REG. NO.

JUN 11 1935

Acc. No.

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. M

REGISTER NO.

6301

State California

General locality San Francisco Bay

Locality Point Richmond to Point San Pablo

Scale 1:10,000 Date of survey Sept. 24, Oct. 13, 1934

Vessel U.S.C. & G.S. GUIDE

Chief of party F. H. Hardy - sub-party L. P. Raynor

Surveyed by John C. Bliss

Inked by John C. Bliss

Heights in feet above M.H.W. to ground ~~to tops of trees~~

~~Contour~~; - Approximate contour, ~~Fern-line-interval~~ 50 feet

Instructions dated May 31, 1934, 19

Remarks: Continuation of Project H.T. 184.

DESCRIPTIVE REPORT
to accompany
TOPOGRAPHIC SHEET FIELD NO. M
PROJECT H. T. 184
SAN FRANCISCO BAY
Sub-party L. P. Raynor
1934

AUTHORITY, LIMITS, PARTY, DATES:

The authority for this work is contained in paragraph 6 of Director's letter 22 RS-1995-GU 1-May 31, 1934, Subject, Instructions, Project H T 184, and calls for a detailed topographic survey of San Francisco Bay shoreline from Point Richmond to Point San Pablo. The field work was done by a party under J. C. Bliss, Surveyor, acting under instructions from Commanding Officer U. S. C. & G. S. Ship Guide between September 24th and October 13, 1934.

CONTROL:

The work was adequately controlled by numerous triangulation stations well placed over the area. A list of these stations and their geographic positions is attached. The following points, Sir, Tree, Bl, poles above Blake Brothers Quarry, Urn, Eat, and Trans, were located by cuts taken from three or more triangulation stations, which were occupied with the planetable for that purpose. These points served as additional control for the topography. The control on this sheet was so well placed, that every set up for delineation of shoreline or locating signals was a planetable three point fix with extra control points to check on each time and no long traverses were necessary. This not only facilitated the work, but greatly increased its accuracy.

METHODS:

An aluminum mounted paper sheet on which the triangulation stations had been carefully plotted was used with the standard U.S.C.&G.S. planetable equipment. Before beginning topography Δ Richard 1932 was occupied and all control points visible checked. Everything was found in order except station, "White house steel structure", which was later found to be lost. The "C. W. A." sign on San Pablo Ridge had also been destroyed.

AIDS TO NAVIGATION LOCATED:

There are two navigation aids on the Standard Oil Company Long Wharf, a siren at the outer end and a bell about midway from the shore. These were carefully located and are signals \odot "Sir" (Siren) and \odot "Urn" (Bell) as shown on the sheet. A fog bell just south of Red Rock is shown on the sheet also. On the Point Orient Wharf of the Standard Oil Company there is a fog bell

on a white wooden latticed structure, and is signal B 1. The siren on the outer end of the Santa Fe ferry slip at Point Richmond has also been located and is shown on the sheet. The fog bell which is on the outer end of slip of Point Richmond San Rafael Ferry is maintained by ferry company as an aid to its boats when landing in foggy weather.

COMPARISON WITH PREVIOUS SURVEYS AND CHART 5532:

T4672: The ferry slip ends were found to extend slightly further than shown on photo compilation of T4672 and the dolphins and piles to the Δ Santa Fe Gable were found incorrect. The corrections were made from set ups directly located from Δ Santa Fe Wharf, West Gable 1910. The small wharf on which \odot End is located was found in error and corrected. The shoreline as shown on T4672 agreed with work on this sheet. Two new tanks one of which is \odot Small were located and were probably not in existence when the air photos were taken.

T3654 A: On this sheet which shows the topographic revisions to the year 1920, there was a fair agreement in shoreline as far north as the Standard Oil Company Long Wharf. At present the Long Wharf is wider than shown in 1920 because of additions to each side for carrying extra pipe lines. There is still a single track trolley line on the wharf and the fill containing the pipe lines near shore on the east side of the wharf is still the same. The two piles south of the wharf and tide gage have been removed. The small square tower which may have been Δ "White House Steel Structure" is no longer in existence and the two large tanks to the northwest of it have been carefully relocated as well as the buildings on the inner end of the long wharf of the Standard Oil Company. Between the Long Wharf and Blake Brothers quarry shoreline has been changed by fills and is shown correctly on the present sheet. The trolley line shown on 3654A as running towards the quarry is no longer in existence. In the cove between Castro Point and Molate Point there is a considerable difference in shoreline from that of the survey of 1920, Sheet 3654A. Much distortion in the bromide made comparisons difficult. However the shoreline of the present survey is considered to be correct since each planetable position was checked by three pointing. At Molate Point the rock crushing plant shown on the 1920 survey has been entirely removed and only a few broken piling remain from the crusher wharf. From Molate Point to the Standard Oil Point Orient Wharf a fair agreement was obtained with the shoreline of the 1920 survey. The existing detail around WineHaven checks the old survey very well, however the large electric sign, "Home of C W A", shown on sheet 3654A has been removed. There is a single track railway on the Winehaven Wharf. The first fifty meters of the wharf from the shore has collapsed and the wharf as far out as the first building is very rickety. However, the outer extension is very substantial and in good condition. The single row of piling shown between Molate Point and the Point Orient Wharf on the old survey have been removed. The Standard Oil Point Orient Wharf remains the same as at the time of the old survey. There is a fog bell on the outer end of the wharf. Some additional oil tanks were located near the wharf. All tanks located on this sheet were located by rod and planetable cuts and their locations are considered good. There is

a single track railway on the Point Orient Wharf. A fair check with the shoreline of the 1920 survey was obtained from the Point Orient Wharf north to the limits of the sheet. Distortion in the bromide again made comparison difficult here. The remains of the old broken bulkhead to the west of the railroad trestle have disappeared. The piling shown on the 1920 survey near the shoreline opposite the Pacific Molasses Company is also gone. The San Pablo Hotel has been demolished. The wharf shown on the 1920 survey as the Richmond Belt R. R. Wharf is now the Parr Richmond Terminal Corporation's San Pablo Wharf. A large number of tanks at Point San Pablo not shown on the 1920 survey were located. They belong to the Philippine Refining Company and possibly have been erected since 1920. The railroad shown on the 1920 survey as extending as far south as Winehaven now extends to the plant of Blake Brothers Material Plant at Castro Point. The East Brother Island is practically the same as at the time of the 1920 survey. However the remains of the small wharf shown on the north side of the island have disappeared. The West Brother Island not shown on the 1920 survey is shown on this sheet.

T4271: In comparing the present survey with that of Sheet T4271 made in 1927 considerable change is noted in the shoreline near the Blake Brothers Quarry. However, from about 270 meters north of the quarry dock a fair check is obtained. Several dolphins in the vicinity of the San Rafael Ferry Slips not shown on the 1927 survey were located.

T2941 (1909): Considerable change has occurred in shoreline as shown on T2941 south and east of Blake Brothers Wharf. The piles shown to be east of the inner end of the loading wharf on T2941 no longer exist. The tank shown on top of hill in black no longer exists, in the place shown on this sheet. The concrete wall between ~~CHOP~~ and ~~OG~~ is still in existence, but the wharves shown on T2941 to the southeast are no longer there. The A. T. & Santa Fe Railroad in vicinity of Point Richmond no longer runs on a trestle but on a fill with shoreline as shown on this sheet. The shoreline in the bight between Molate Point and Castro Point agrees comparatively well as far as Molate Point considering the distortion in the photostat. From Molate Point to Winehaven much change has taken place. From Winehaven north to Point Orient Wharf the shoreline again agrees fairly well but the wharf itself has been changed. Many changes have occurred between Point Orient and Point San Pablo and the basin indicated on T2941 no longer exists although the railroad crosses on trestle as shown on present sheet. The wharf shown on Molate Point no longer exists. Molate Reef is essentially the same except in the number of rocks shown above High Water as noted in further paragraph. The work of 1934 was carefully done and it is recommended for acceptance. The two dots or spots which show outside the dotted line north of this reef do not now exist and may be defects in the printing of this sheet. They do not now exist in nature.

Chart 5532: The chart was not enlarged to scale of the survey so but a visual comparison was made and following noted. The pile shown just under the "h" in Point Richmond no longer exists, and piles north of Santa Fe slips have been changed. The two piles south of and near the inshore end of the trestle of Long Wharf of Standard Oil Company no longer exist. Castro Rocks, should be shown as indicated on the present planetable sheet and not as one rock, with two rocks awash as at present shown on Chart

4

5532. The White Sign shown near the shore between Molate Point and Castro Point is no longer there.

RED ROCK, CASTRO ROCK, AND ADJACENT REEF:

Molate West Reef was occupied with a planetable and the existing detail rodged in at near mean low water, therefore, the detail as shown here is considered more nearly correct than any heretofore obtained. A thorough checked survey was run around Red Rock Island. The highwater line and detail around the island checked old surveys fairly well with the exception of a sandy beach on the northeast corner of the island. There is also a rock awash off the northwest corner of the island. This rock is shown as a rock above highwater on the 1909 survey, and as a buried rock on hydro sheet #5248. The rock bares about one foot at mean low water. The sandy beach on the northeast corner of the island may have been piled up by current action, but this seems unlikely. Possibly this area may also have been covered at highwater at the time of the old survey, but at present the highwater line is as shown.

GEOGRAPHIC NAMES:

The rocks and reef named Castro Rocks on Chart 5532 is well known locally as "The Chickens", and was always so called that by all fishermen and other boatmen contacted while the work was in progress. The wharf and buildings shown on 3654A as Richmond Belt Railroad is now known as Point San Pablo Wharf of the Parr-Richmond Terminal Corporation.

COUNTY MONUMENT:

On the northwest corner of Red Rock and on top of the point is a monument marking the corners of San Francisco, Marin, and Contra Costa Counties. This monument was located and its geographic position is given on an attached sheet.

MISCELLANEOUS:

Three tidal benchmarks in the vicinity of the Long Wharf of the Standard Oil Company were located and are indicated on the sheet, together with the location of the tide gage installed for use in connection with the hydrographic survey in this area. Two tidal benchmarks were also located just south of the Pacific Molasses Company plant. One on a rock on the bay and one on the southwest corner of a small brick building near the shoreline and is "Junk".

ADDED WORK.

After the plane table work had been completed, the Standard Oil Company extended their long wharf to the northwest as indicated on the plane table sheet. Construction on the wharf was completed some time in February 1935. The length of added wharf was determined by tape measurements taken by this party.

Respectfully submitted,

John C. Bliss
John C. Bliss, Surveyor
U.S.C. & G.S.

Approved and forwarded

L P Raynot

F. H. Hardy
F. H. Hardy, H. & G. S.
Chief of Party, C. & G. Survey,
Commanding Ship Guide.

22-AB
1995 GU 4

T6301

DIVISION OF CHARTS

Please attach to Descriptive
Report for topographic Sheet
"M" (Hardy-Rayner-Point
Richmond-1935). If

June 18, 1935. Station is

shown as
"Δ" it should
be changed
to "O".

Borden

To: The Commanding Officer,
U.S.C. & G.S. Ship GUIDE,
510 Customhouse,
San Francisco, California.

Through: The Inspector, San Francisco Field Station.

From: The Director,
U. S. Coast & Geodetic Survey.

Subject: Location of Survey Signals.

Referring to the triangulation records recently submitted by you covering the location of Station SIR, you are informed that it was not considered desirable to register this work as triangulation for the following reasons:

- (a) There is no check on the recovery of the base stations.
- (b) There is no check out on the station located nor was the station occupied.

The station in question is being classed and registered in this office as a topographic station. The description will be copied on Form 524 and under "Detailed Description" the following note will be entered:

"Cut in with theodolite from Station SAN PABLO RIDGE (1897) and Station RICHARD (1932), but with insufficient accuracy to class as a triangulation station and without check from a third station."

The fact that an object or station is located by theodolite cuts does not necessarily classify it as a triangulation station. Had a third cut been obtained to the station and a satisfactory side check obtained, the work, of course, would have been registered as triangulation. It is recognized that frequently a Chief of Party engaged on combined operations will have occasion to locate a station from theodolite cuts which by reason of poor intersection angles, indefinite pointings,

partially obstructed lines, abnormal eccentricity or poor observing may not be considered strong enough to be classed as a triangulation station. The logical treatment in cases of this kind is to consider the station as a topographic or hydrographic station, mark and describe it as such, omit the station from the triangulation sketch and not submit the results as triangulation records. The description of such a station on Form 524 should, of course, state that it had been located by theodolite cuts which were not considered of sufficient accuracy to warrant classifying the work as triangulation. It would also be desirable in this case to show on Form 524 the azimuths and distances to the stations from which it was located.

Acting Director.

cc Chart Division

GEOGRAPHIC POSITIONS OF BASE CONTROL POINTS
to accompany
TOPOGRAPHIC SHEET FIELD NO M
PROJECT H. T. 184
1934

| STATION | LATITUDE | | | " meters | LONGITUDE | | | " meters |
|----------------------------------|----------|----|--------|----------|-----------|----|--------|----------|
| | ° | ' | " | | ° | ' | " | |
| RED ROCK 1851 | 37 | 55 | 44.706 | 1378.3 | 122 | 25 | 47.304 | 1155.3 |
| RED ROCK 1899 | | | | | | | | |
| Southernmost rock 1899-00 | 37 | 55 | 42.883 | 1220.6 | 122 | 25 | 45.777 | 1092.3 |
| OIL 1917 | 37 | 55 | 20.326 | 626.9 | 122 | 24 | 33.117 | 808.8 |
| BRICK STACK 1910 | 37 | 55 | 47.052 | 1450.7 | 122 | 23 | 57.387 | 1401.5 |
| SANTA FE SLIP WEST GABLE 1910 | 37 | 54 | 33.640 | 1037.2 | 122 | 23 | 20.576 | 502.7 |
| RICHMOND PIER BLDG | | | | | | | | |
| S.W. CORNER 1917 | 37 | 54 | 30.938 | 953.8 | 122 | 23 | 11.540 | 281.9 |
| SOUTH WHITE TANK 1917 | 37 | 56 | 36.17 | 1115.2 | 122 | 23 | 56.41 | 1377.4 |
| HIGH HILL 2 1921 | 37 | 56 | 32.454 | 1000.6 | 122 | 24 | 04.748 | 115.9 |
| RICHARD 1932 | 37 | 55 | 13.794 | 425.3 | 122 | 22 | 51.509 | 1258.1 |
| SAN PABLO RIDGE 1897 | 37 | 57 | 32.005 | 986.8 | 122 | 24 | 54.030 | 1319.0 |
| PT. SAN PABLO 2 1897 | 37 | 57 | 54.041 | 1666.2 | 122 | 25 | 35.520 | 867.0 |
| EAST BROTHER ISLAND | | | | | | | | |
| LIGHTHOUSE 1932 | 37 | 57 | 47.820 | 1474.4 | 122 | 25 | 56.696 | 1384.0 |
| MOLATE WEST REEF 1899 | 37 | 55 | | 1806.9 | 122 | 24 | | 1457.5 |
| MOLATE EAST REEF 1899 | 37 | 55 | | 1787.7 | 122 | 24 | | 1347.8 |

GEOGRAPHIC POSITION OF COUNTIES MONUMENT ON RED ROCK
Scaled from planetable sheet

| | | | |
|-----------------------------|-------|--------|-------|
| COUNTY BOUNDARY MONUMENT | | | |
| S.F., MARIN, & CONTRA COSTA | (395) | | (206) |
| 37 55 | 1454 | 122 25 | 1259 |

STATISTICS:

| | |
|-------------------------------|-----|
| Statute Miles of Shoreline | 5.8 |
| Statute Miles of Road. | 4.0 |
| Statute Miles of Railroad | 2.7 |
| Area in square statute miles. | 1.5 |

APPROVAL NOTE OF CHIEF OF PARTY

The completed topographic sheet field letter "M"
has been inspected and is approved.

L. R. Raper

F. H. Hardy

F. H. Hardy, H. & G. E.
Chief of Party, C. & G. Survey
Commanding Ship Guide.

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Oakland, Calif.

20 March 1935, 193

DIRECTOR, U.S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted:

F. H. Hardy

Chief of Party.

| DESCRIPTION | POSITION | | | | | METHOD OF DETERMINATION | CHARTS AFFECTED |
|--|----------|-------------|-----------|-------------|--------------|-------------------------|-----------------|
| | LATITUDE | | LONGITUDE | | DATUM | | |
| | ° | D.M. METERS | ° | D.P. METERS | | | |
| SIGN - CABLE CROSSING (0 Sign) | 37 57 | 1076 | 122 25 | 913 | N.A. 1927 | Plane-table | 5532 |
| TREE (0 Tree) | 37 56 | 1547 | 122 25 | 374 | " | " | " |
| OIL TANK (0 Small) | 37 54 | 1310 | 122 25 | 271 | " | " | " |
| OIL TANK | 37 54 | 1305 | 122 25 | 246 | " | " | " |
| The above landmarks were scaled from topographic sheet H | | | | | | | |
| of field work of F. H. Hardy, Chief of Party, Commanding Ship Guide. | | | | | | | |
| They were inspected by the hydrographic party which operated in this area, and | | | | | | | |
| all were used as hydrographic signals except the last oil tank listed. | | | | | | | |
| The scaling was done by L. P. Raynor and several days later, | | | | | | | |
| the positions as given on the typed copy were verified by plotting on the | | | | | | | |
| original sheet. | | | | | | | |
| L. P. Raynor | | | | | | | |

A list of objects carefully selected because of their value as landmarks as determined from seaward, together with individual descriptions, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report.

The selection, determination, and description of these points are an important factor in the value of the chart. Landmarks selected at appropriate intervals can be clearly charted. However, when none is outstanding, a group of two or three objects may by their interrelationship provide positive identification. A group so selected should be indicated.

The description of each object should be short, but such as will clearly identify it; for example, a standpipe, elevated tank, gas tank, church spire, tall stack, red chimney, radio mast, etc. Assign numerals to landmarks to indicate: (1) Offshore, (2) inshore, (3) harbor, 1, 2, 3 would be a mark useful on all charts. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

AIDS TO NAVIGATION

Oakland, Calif.20 March 1935, 193

DIRECTOR, U.S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted:

F. H. Hardy

Chief of Party

| DESCRIPTION | POSITION | | | | | METHOD OF DETERMINATION | CHARTS AFFECTED | | |
|--------------------------------|----------|----|--------------|-----|-------|-------------------------|-----------------|-------------------|--------------|
| | LATITUDE | | LONGITUDE | | DATUM | | | | |
| | ° | ' | D. M. METERS | ° | | | | ' | D. P. METERS |
| SIREN (Santa Fe Ferry) | 37 | 54 | 852 | 122 | 23 | 780 | N.A. 1927 | Plane-table | 5532 & 5530 |
| BELL (Santa Fe Ferry) | 37 | 54 | 907 | 122 | 23 | 624 | " | " | " " |
| (Standard Oil Long Wharf | | | | | | | | | |
| SIREN Pt. Richmond & Simi) | 37 | 55 | 641 | 122 | 24 | 809 | " | theod. w. triang. | " " |
| (Standard Oil Long Wharf | | | | | | | | | |
| BELL Pt. Richmond) & Urn | 37 | 55 | 936 | 122 | 24 | 384 | " | Plane-table | " " |
| BELL (South of Red Rock) | 37 | 55 | 1241 | 122 | 25 | 1093 | " | " | " " |
| (Standard Oil Co. Dock | | | | | | | | | |
| BELL Pt. Orient & B1) | 37 | 57 | 624 | 122 | 25 | 914 | " | " | " " |
| LIGHT FIXED RED (Standard Oil | | | | | | | | | |
| Co. Wharf Point Richmond) | 37 | 57 | 626 | 122 | 25 | 919 | " | " | " " |
| LIGHT FIXED RED | | | | | | | | | |
| (as above) | 37 | 57 | 746 | 122 | 25 | 936 | " | " | " " |
| DIAPHONE (East Brothers Island | 37 | 57 | 1482 | 122 | 25 | 1342 | " | " | " " |
| (Richmond-San Rafael | | | | | | | | | |
| BELL Ferry Slip & Bell) | 37 | 56 | 403 | 122 | 24 | 1164 | " | " | " " |
| | | | 148 | | | | | | |

The above were scaled from topographic field sheet No. 117 of

F. H. Hardy, Chief of Party, Commanding Ship U.S.S. Albatross

The positions as given on this typed copy were verified by plotting
then back on the original survey sheet, or in case of the triangulation station
by comparisons with the original computation.

L. P. Pajon, E. & C. Eng't

A list of objects carefully selected because of their value as landmarks as determined from seaward, together with individual descriptions, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report.

The selection, determination, and description of these points are an important factor in the value of the chart. Landmarks selected at appropriate intervals can be clearly charted. However, when none is outstanding, a group of two or three objects may by their interrelationship provide positive identification. A group so selected should be indicated.

The description of each object should be short, but such as will clearly identify it; for example, a standpipe, elevated tank, gas tank, church spire, tall stack, red chimney, radio mast, etc. Assign numerals to landmarks to indicate: (1) Offshore, (2) inshore, (3) harbor, 1, 2, 3 would be a mark useful on all charts. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

Diagram No. 5530-2

Under investigation. Q

[illegible]

REVIEW OF TOPOGRAPHIC SURVEY No. 6301

Title (Par. 56) *Pt. Richmond to Point San Pablo, California*Chief of Party *F.H. Hardy* Surveyed by *J.C. Bliss* Inked by *J.C. Bliss*Ship *Guide* Instructions dated *May 31, 1934* Surveyed in *Sept. Oct. 1934*

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.) ✓
2. The character and scope of the survey satisfy the instructions. ✓
3. The control and closures of traverses were adequate. (Par. 12, 29.) ✓
4. ~~The amount of vertical control that the Manual specifies for contours-formlines was accomplished. (Par. 18, 19, 20, 21, 22, 23.)~~
5. ~~The delineation of contours-formlines is satisfactory. (Par. 49, 50.)~~
6. There is sufficient control on maps from other sources that were transmitted by the field party to enable their application to the charts. (Par. 28.) *None submitted with this survey*
7. ~~High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.)~~ ✓
8. The representation of low water lines, reefs, ~~coral reefs~~ and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41.) ✓
9. Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.)

See reverse side

10. ~~The span, draw and clearance of bridges are shown. (Par. 16c.)~~
11. ~~Locations and elevations of summits are given. (Par. 19, 51.)~~
12. ~~The tree line was shown on mountains. (Par. 16g.)~~

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.

Paragraph 9

T399 (1853)

The area covered by this survey has been changed so materially that it is not comparable to the present survey (T6301).
T561(1856)

The same may be said of this survey as was said of T399. Walls, railroads and highways have been built along the shore which change the shore line entirely.

T2445 (1895)

This survey was also not comparable to the present survey (T6301). Survey T2445 shows a sunken rock at Lat. $37^{\circ} - 55' .6$ Long. $122^{\circ} - 23' .6$ which is not shown on any of the later surveys of this area, or Chart 5532. It should be disregarded in future charting.

T3654(1917), T2941(1909), T4271(1927) and T4672(1931-4)

All of these surveys have been compared in detail with the present survey (T6301), together with Chart 5532, and are thoroughly discussed on pages 2, 3 and 4 of the Descriptive Report. No further comment is necessary.

13. The descriptive report covers all details listed in the Manual, in so far as they apply to this survey. (Par. 64, 65, 66, 67.) ✓
14. ~~The descriptive report also contains additional information required in aero-topography relative to type of photographs, method of compilation and type of ground control.~~
15. The descriptions of recoverable stations and references to shore line were accomplished on Form 524. (Par. 29, 30, 57, 67 except scaling of DMs and DP's, 68.) *16 Cards submitted*
16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) ✓
17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.) *No note of having checked declinaoire*
18. The geographic datum of the sheet is *N.A. 1927 (Adjusted)* and the reference station is correctly noted. (Par. 34.)
19. Junctions with contemporary surveys are adequate. ✓
Joins T 4672 (1931-4) on the South
20. Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.) ✓
21. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50.) ✓
22. No additional surveying is recommended. ✓
23. The Chief of Party inspected and approved the sheet and the descriptive report ~~after review by~~ ✓
24. Remarks:

Reviewed in office by

Chas. R. Bush Jr. June 15, 1936

Examined and approved:

E. K. Green
Chief, Section of Field Records

L. O. Lobbat
Chief, Division of Charts

Fred. L. Peacock
Chief, Section of Field Work

Grande
Chief, Division of Hyd. and Top.